

**ABSTRACT**

Systems and apparatuses for providing a broadband inductor assembly. One broadband inductor assembly includes a conical coil inductor having a broad end with radius  $r_1$  and a narrow end with radius  $r_2$ , the conical coil inductor also having a broad end terminal and a narrow end terminal. The broadband inductor assembly includes a base. The broadband inductor assembly includes at least one support, such that the conical coil inductor is supported by the at least one support above the base at a distance greater than or equal to  $r_1$  from the base. An ultra broadband bias tee is provided that includes a broadband inductor assembly and a DC block.

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